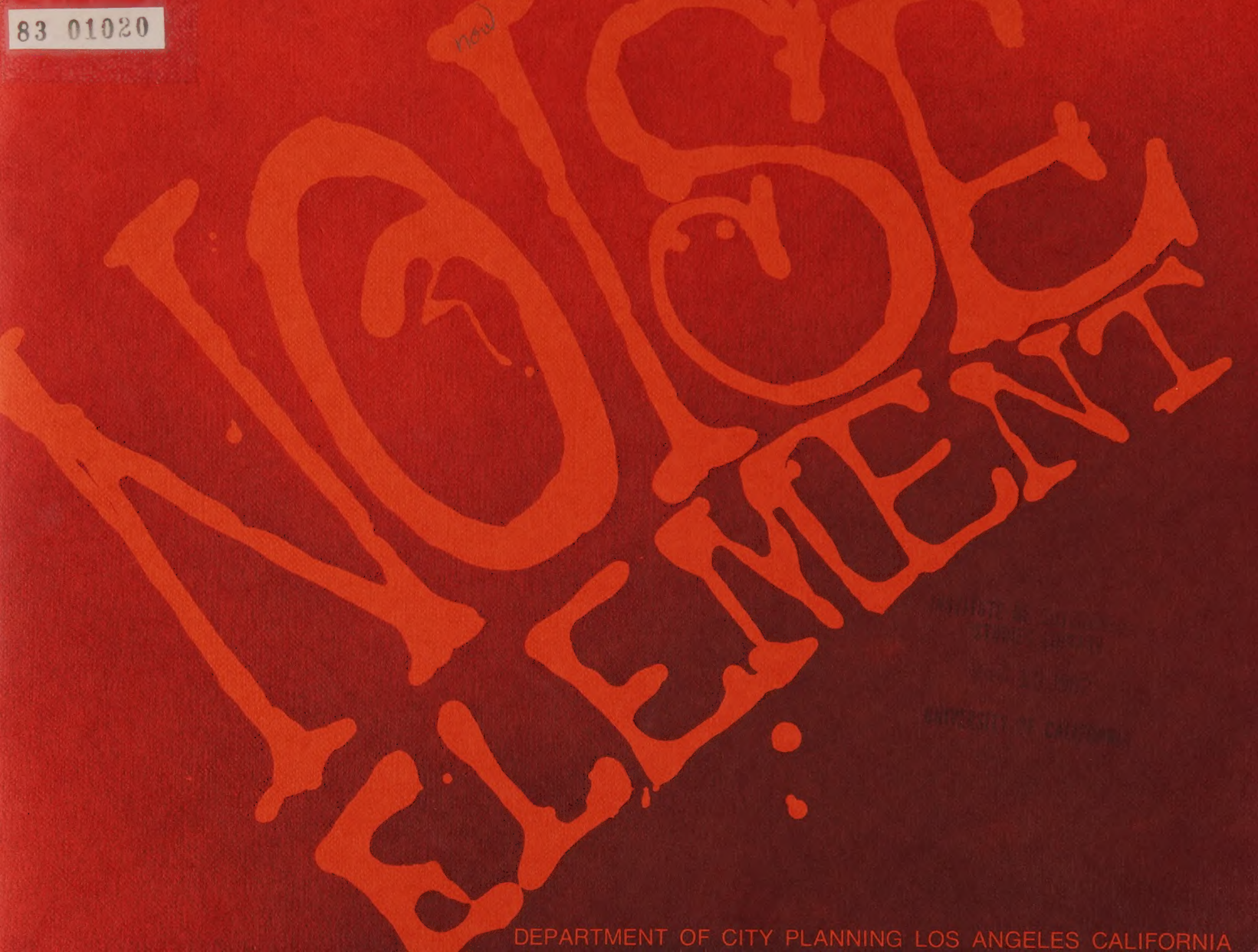


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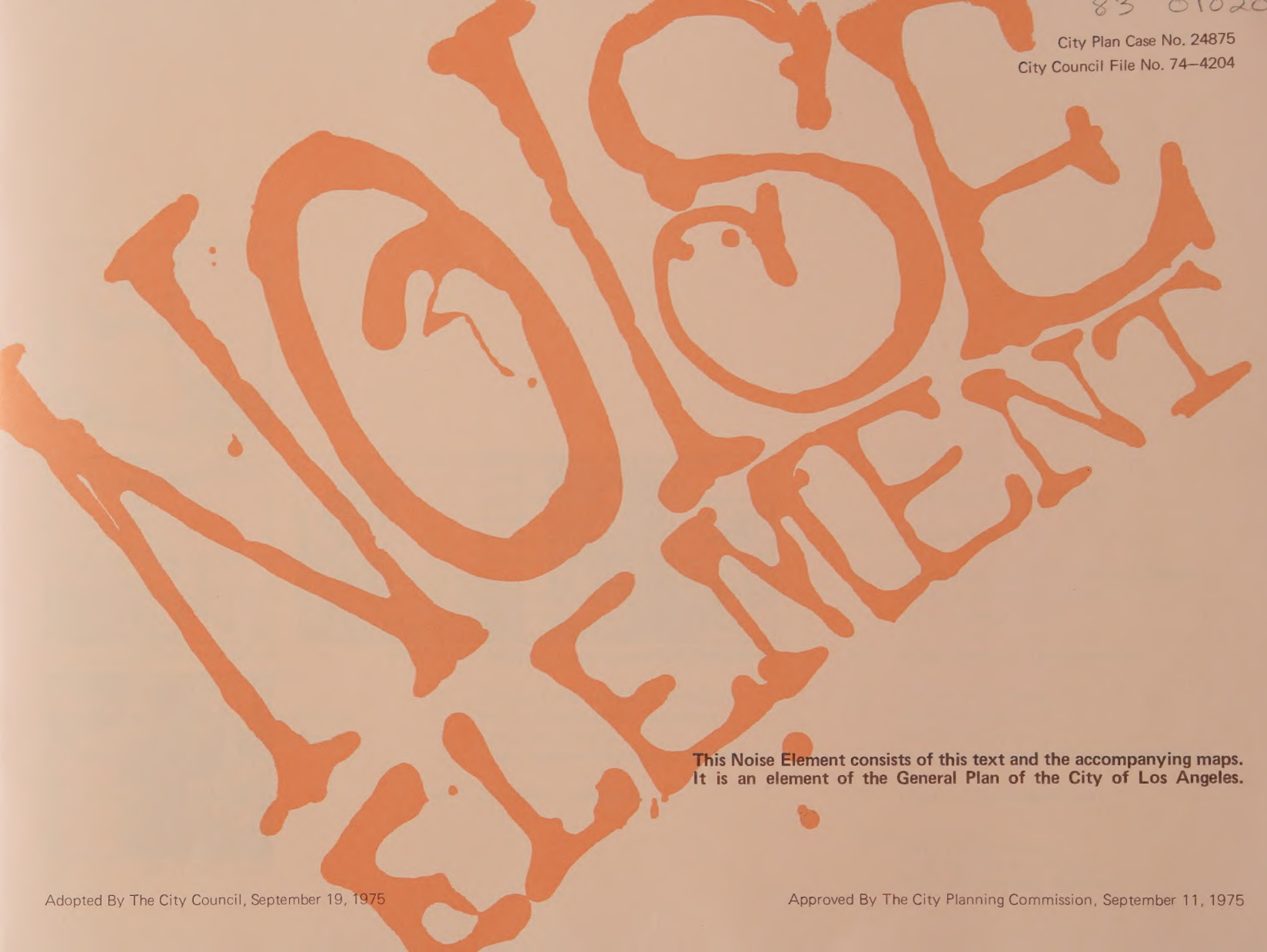
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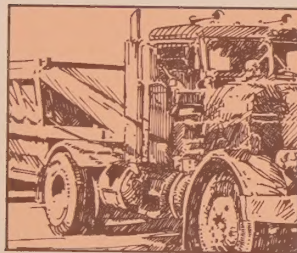
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DEPARTMENT OF CITY PLANNING

CALVIN S. HAMILTON, director of planning



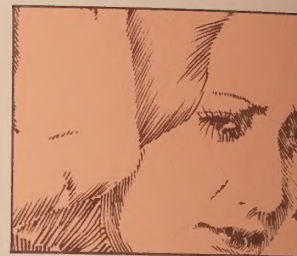
**This Noise Element consists of this text and the accompanying maps.
It is an element of the General Plan of the City of Los Angeles.**



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PAGE FOURTEEN



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Maps in back pocket:
Airport Noise Contours
State Highways and Freeways
Major and Secondary Highways

PURPOSES

USE OF THE PLAN

The purpose of the Noise Element is to serve as an official guide to the City Council and the Mayor; the City Planning Commission; other concerned governmental agencies; individual citizens and businessmen; and private organizations concerned with noise pollution and the environment, for the identification, mitigation, and regulation of noise pollution within the City of Los Angeles. The Plan provides a reference to be used in connection with actions on various public and private development matters, as required by law. The Plan includes definitions, objectives, policies, standards, criteria, programs and maps which are to be used when decisions are made

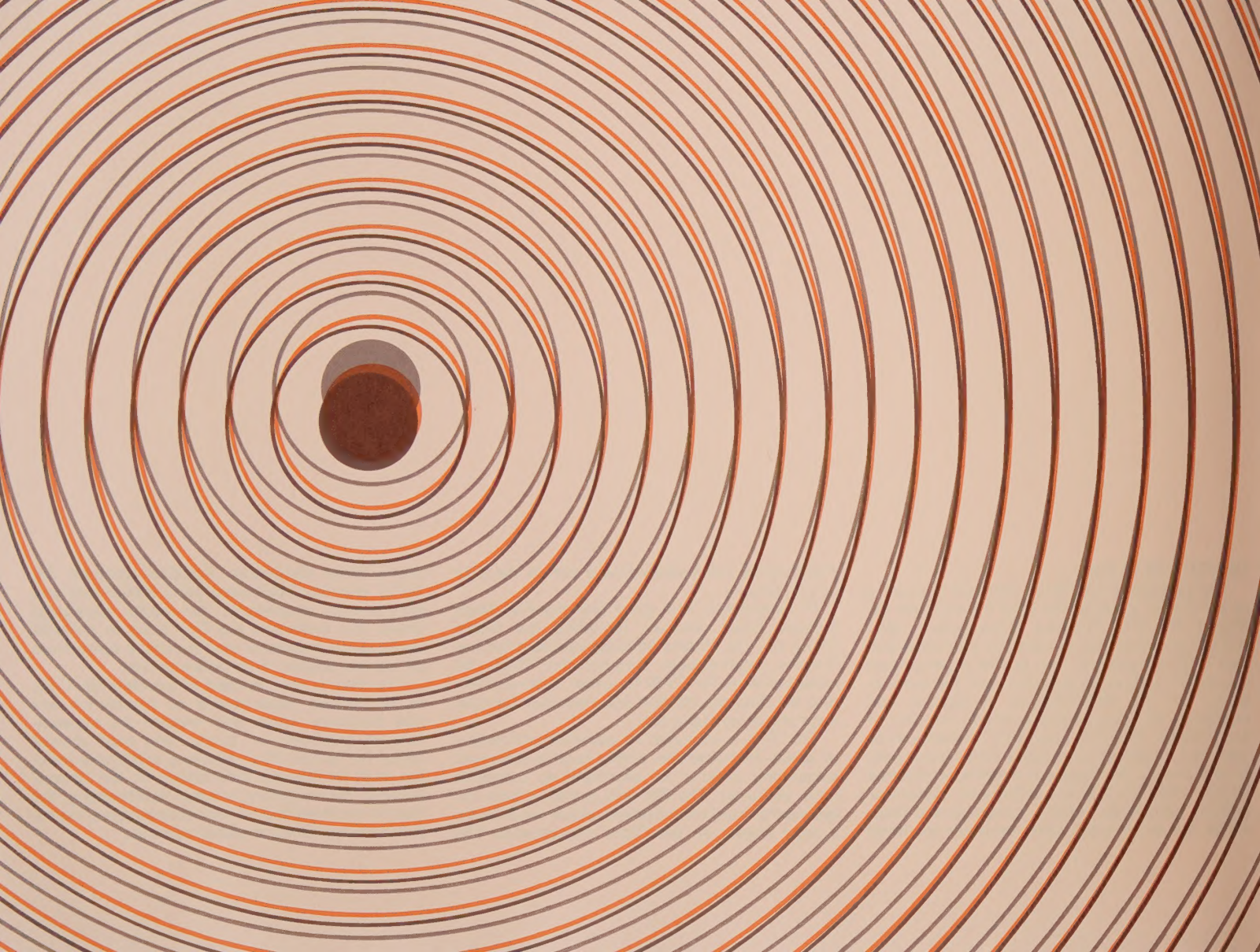
affecting the noise environment within the City of Los Angeles.

In compliance with State law, the Plan Maps indicate noise contours including the future CNEL 65, 70, 75 and 80 noise contours for Los Angeles International Airport; the CNEL 65 noise contours for 1980 for other airports affecting the City; the 65 dBA noise contour for freeways and State highways.

The Plan is intended to establish uniformity of policy and direction within local government concerning actions to eliminate or minimize noise pollution. The Plan will provide a basis for decision-making on proposals which would have a noise impact on the City's environment. The

City's Noise Ordinance (adopted January 24, 1973) provides additional noise regulations and enforcement procedures for noise violations. Under this ordinance the City seeks to prohibit unnecessary, excessive and annoying noise from all sources subject to its police power.

This Plan is not intended to mandate the City, or its various departments to commence any new programs which may require the expenditure of manhours or funds. Any such actions called for in this Plan requiring additional funding must be brought individually to the Council through the budgetary process. Additionally, the Plan is not intended to restrict emergency operations and activities of public agencies.



DEFINITIONS

Ambient Noise — The level of noise that is all-encompassing within a given environment, being usually a composite of sounds from many and varied sources near to and far from the observer. No specific source is identified in the ambient.

Community Noise Equivalent Level (CNEL) — The CNEL in dBA is the adjusted noise exposure level for a 24-hour day. It is a noise measurement scale which accounts for noise source, distance, single event duration, single event occurrence frequency, and time of day. It is a combination of separate daytime, evening, and nighttime equivalent noise levels with weighting factors applied to evening and nighttime values. The adjustment approximately accounts for the lower tolerance of people to noise during the evening and nighttime periods relative to the daytime period.

A-Weighted Sound Pressure Level (dBA) — A method of sound measurement which assigns weighted values to selected frequency bands in an attempt to reflect electronically how the ear responds to sound. The A-Weighted Sound Pressure Level (dBA) is a quantity in decibels read from a standard sound level meter that is

switched to the weighting network labeled "A". The "A" weighting network discriminates against lower frequencies according to a relationship approximating the auditory sensitivity of the human ear at moderate sound levels.

Day-Night Average Sound Level (Ldn) — A combination of daytime and nighttime "A" weighted noise levels with the nighttime values weighted further to account for the lower tolerance of people to noise during the nighttime period relative to daytime period. Ldn is approximately ½ dB lower than the estimated CNEL value, and can be considered synonymous with CNEL.

Noise Attenuation — The attenuation of a material substance or medium refers to its ability to reduce the noise level (acoustic) from one position to another. Noise attenuation can be specified, in decibels, as a noise transmission loss.

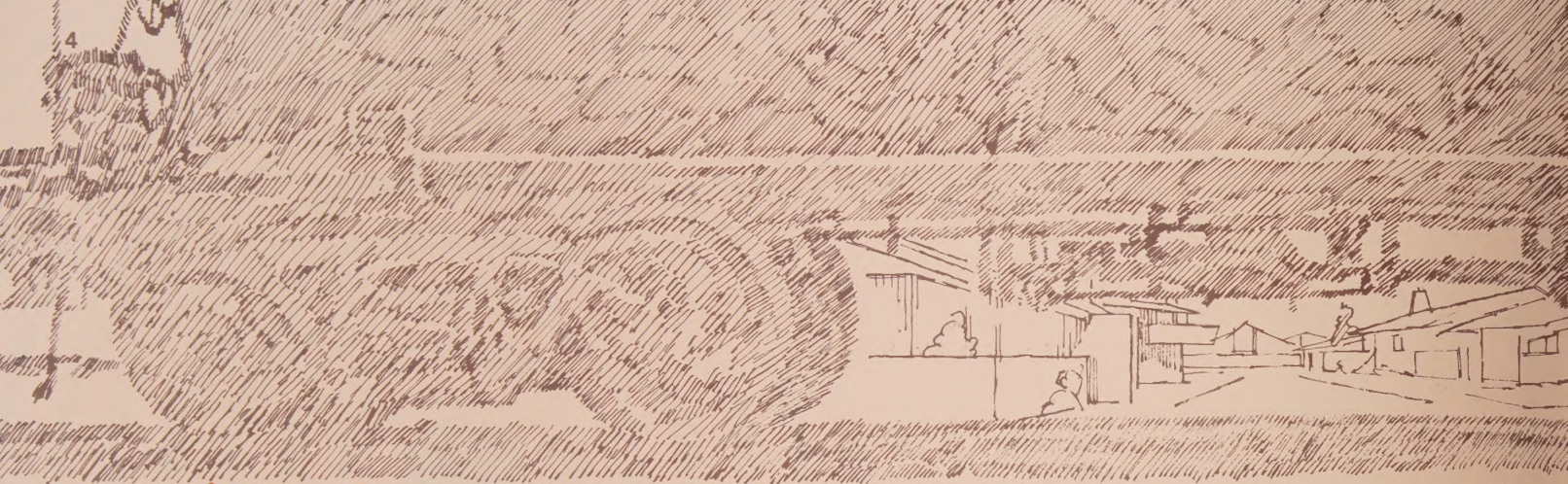
Noise Contours — A line connecting equal levels of noise intensity as measured on a particular scale such as Ldn.

Noise Impacted Area — Area affected by unusually high levels of noise. Generally, a criterion level is stated in decibels which has been weighted for frequency and time, e.g., CNEL 65, Ldn 65.

Noise Sensitive Land Uses — The more sensitive land uses include: residential, schools, libraries, churches, hospitals, auditoriums and outdoor recreation areas. These typify land uses whose suitability is restricted by intrusive noise, hence are termed "noise sensitive". Noise sensitivity factors include: interference with speech communication; subjective judgments of noise acceptability and relative noisiness; need for freedom from noise intrusion; and sleep interference criteria. Also considered are noise complaint history and compatible building construction.

Performance Standards, Noise — Measured criteria for maximum emission of noise from a source. Noise performance standards for stationary land uses are usually applied at the lot line.

Statistical Level (L50) — The L50 statistical noise level is exceeded 50 percent of the time during which the measurement was made.



FEATURES OF THE PLAN

The Plan includes noise definitions, standards, criteria and policies relating to noise evaluation and control. The above are intended to serve as a guide for decisions affecting the noise environment of the City. The Plan also includes maps indicating noise contours for airports, noise contours for State Highways and Freeways.

As an aid to community planning, transportation and development plan evaluation, the Plan recommends support or utilization of existing airport noise standards and motor vehicle noise standards, criteria for determining compatible land uses, criteria for establishing heliports, City noise standards, and criteria for locating residential buildings. The 45 dBA noise contours for hospitals, long-term health facilities and outdoor recreation areas have not been shown on the Plan Maps due to map scale and the impracticality of locating these noise contours. Policies and programs are provided to evaluate and mitigate noise effects on these facilities.

The Plan makes recommendations which will enhance the noise environment in the City. These proposals include regulation of con-

struction noise and of short take-off and landing airports and recommendations for more stringent motor vehicle noise emission standards.

Recognizing that certain activities are more sensitive to noise, the Plan Maps have identified impacted areas by the use of CNEL 65 and 65 dBA noise contours. The Plan has provided criteria for evaluating compatible land use in these areas.

Noise contours for local highways have not been mapped due to the scale in mapping at the citywide level and because of the difficulty in analyzing the varying capacities and traffic volumes of local streets and highways. A technical report has been prepared for the evaluation of noise from freeways, highways, local streets and railroads in the City. Nomographs of highway noise contours provide noise level estimates for various traffic volumes. Through the use of nomographs, these noise contours of peak traffic volumes can be converted to daily exposure contours, i.e. day and night noise levels (Ldn).

Many noise-producing activities are not under the jurisdiction of the City. Noise regulations for activities such as airplanes and motor vehicles



OBJECTIVES OF THE PLAN

are promulgated by other agencies, and the City is therefore preempted from establishing standards in these fields. The Plan endorses coordination of noise control activities at the National, State, Regional and County level. The need for Federal and State financial assistance to attenuate and/or mitigate noise problems is also recognized. Where there is a need for additional Federal or State standards or where preempted standards should be strengthened, appropriate City actions are recommended.

A strict enforcement of the City's Noise Ordinance is called for to control unnecessary noise. In addition to controlling loud noises such as shouting, loud radios, amplified sounds, etc. the ordinance also prohibits construction noise between the hours of 9:00 P.M. and 7:00 A.M. In general, the City's Noise Ordinance makes it unlawful for any person to willfully make or cause to be made any loud, unnecessary, and unusual noise which disturbs the peace or quiet of any neighborhood in the City or which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area.

- To coordinate intergovernmental efforts to abate noise.
- To reduce the impact of noise from all types of aircraft.
- To reduce motor vehicle noise from streets and freeways through proper location and design.
- To reduce noise levels produced by all types of motor vehicles.
- To require acceptable noise levels for future modes of transportation.
- To reduce the impact of railroad noise.
- To reduce the impact of construction and industrial noise.
- To minimize external noises and prevent them from penetrating quieter uses.
- To abate unnecessary outdoor noises.
- To provide the basis for noise evaluation in land use considerations, and Environmental Impact Reports.
- To acquaint people with the seriousness of noise pollution, and ways they can assist in reducing noise.

POLICES

GENERAL

It is the City's policy that:

- Noise reduction strategies and priorities be developed to reduce noise in the highest noise-impacted areas.
- The use of quieter automobiles, machinery and equipment be encouraged.
- A sound certification program of published sound ratings for various types of equipment that are sources of noise be encouraged.
- Noise surveys be conducted to aid in determining land use policies.
- "Noise sensitive" land uses and facilities (such as schools and hospitals) be located in accordance with locational and design criteria.
- Consideration of the noise environment be a part of land use planning.
- Unnecessary outdoor noises be regulated or abated.

GOVERNMENTAL COORDINATION

It is the City's policy that:

- A mechanism to assure coordination of all governmental jurisdictions in the field of noise control, abatement and research be developed by the City.
- The use of loans, grants, demonstration projects and other incentives to achieve noise abatement be encouraged.

- Equipment noise standards and labeling by the Federal Government be encouraged.

AIRCRAFT NOISE

It is the City's policy that:

- Airport noise be monitored and noise abatement policies enforced.
- The Federal Aviation Administration be encouraged to assign cruise altitudes high enough to minimize the impact of aircraft on land use.
- Ground operations be conducted in a manner to minimize the impact of aircraft noise on adjoining areas.
- Land uses within airport noise impact boundaries as defined in California Department of Aeronautics standards, be made compatible with airport operations. These standards shall be met by various means to eliminate conflicting land uses and to reduce the size of the noise impact area including modifying or restricting air operations, re-zoning, redevelopment, sound-proofing or purchase of noise easements, etc. Future development within these impact boundaries shall be restricted to compatible uses.
- The City continue to encourage the use of noise suppression devices and other noise reducing modifications to planes using airports located in the City.
- Effective noise barriers be developed in all

airport run-up areas when an external noise problem exists.

- Flight operations be conducted in a manner to minimize noise.

HELICOPTER AND SHORT TAKE-OFF AND LANDING (STOL) AIRCRAFT NOISE

It is the City's policy that:

- Helistops and heliports be located and designed to minimize the impact of noise.
- Helicopter operations be conducted in a manner to minimize noise.
- Noise criteria for future helistops be established; conditional use approval of helistops include noise mitigating conditions.
- The use of quieter helicopters be encouraged.
- Development of STOL airports in the City be regulated to control noise impacts on urbanized areas.

STREET AND FREEWAY NOISE

It is the City's policy that:

- In designing new freeways within the City, preference be given to depressed freeways as a method of reducing noise impact on adjacent lands.
- Where appropriate, noise mitigation measures be employed in the design of all future streets, highways and freeways; and freeways be insulated from adjoining areas wherever possible.



MOTOR VEHICLE NOISE

It is the City's policy that:

- The noise impact of automobiles, motorcycles, buses and trucks be reduced by lowering the level of sound produced.
- Adequate noise suppression devices will continue to be required for all motor vehicles operated within the City.
- Strict enforcement of the noise standards in the Motor Vehicle Code and other State and Federal legislation pertaining to noise offenders be continued.

OTHER MODES OF TRANSPORTATION

It is the City's policy that:

- Development of transit systems with low noise emission characteristics be encouraged.
- More efficient, comfortable and quieter bus service be promoted.
- Railroad noises be minimized to the extent possible.

CONSTRUCTION NOISE

It is the City's policy that:

- Quieter machines and vehicles be purchased by the City, and quieter equipment be required in work performed on City contracts.
- Standards to regulate noise from construction activities be developed and enforced.
- Installation of silencers or mufflers on

construction equipment intake and exhaust openings be required.

- Enforcement of the limitations on hours for construction activity in the City's Noise Ordinance be continued.

INDUSTRIAL NOISE

It is the City's policy that:

- Noise from industrial activities be regulated through noise ordinances and zoning.
- Industrial Performance Standards, including noise standards, be developed and applied in order to provide more flexible controls on industrial noise.

NOISE/LAND USE

It is the City's policy that:

- Acoustical privacy continue to be required in new multi-family dwellings.
- Noise from motors (e.g. air conditioners, swimming pool equipment, etc.), appliances and other consumer products not disturb the occupants of surrounding properties.
- New structures to be located in noise-impacted areas such as hotels and motels, be required to include noise attenuation considerations in their designs and construction.
- In areas subject to unusual, loud, or continuous noise, population densities and building intensities be regulated so as to protect occupants from noise.

- Noise control methods be considered in the construction of new schools and hospitals.

NOISE SURVEILLANCE AND ENFORCEMENT

It is the City's policy that:

- Noise standards in the State's Motor Vehicle Code, and other State and Federal legislation pertaining to noise sources not regulated directly by City ordinance, be strictly enforced. The potential offenders include aircraft, trucks, trains, buses, automobiles, motorcycles and pleasure vehicles.
- A centralized office to receive, analyze, enforce and/or refer noise complaints on all types of noise offenders be established.

RESEARCH AND LEGISLATION

It is the City's policy that:

- Methods for measuring and rating noises in residential, industrial and traffic-impacted areas continue to be developed.
- Community noise surveys be conducted as part of each community plan study.
- Needed Federal and State Legislation be recommended in the areas of revised motor vehicle noise standards, freeway and highway noise design criteria, noise mitigation and land use sensitivity.

STANDARDS AND CRITERIA

AIRPORT NOISE STANDARDS

The Division of Aeronautics, (previously known as the State Department of Aeronautics), State Department of Transportation, Noise Standard regulations were adopted on November 10, 1970 as Title 4, Subchapter 6, of the California Administration Code, in accordance with Division 9, Part 1, Chapter 4, Article 3 of the California Public Utilities Code. It is recommended that repeal or amendment of these regulations by the state shall not effect this section of the Plan.

The criterion for new airports and vacated military airports converted to civilian use is:

The criterion for civilian airports is:

The criterion CNEL for airports which have four-engine turbojet or turbofan air carrier aircraft operations and at least 25,000 annual air carrier operations (takeoffs plus landings) is:

Effective date of regulation

| Effective date of regulation | Day-evening-night (DEN) | Maximum Sound Level (L _{max}) | Maximum Number of Exceeding Events per Year |
|------------------------------|-------------------------|---|---|
| 12-31-75 | 80 | 70 | 25 |
| 1-1-76 to 12-31-80 | 75 | 70 | 35 |
| 1-1-81 to 12-31-85 | 70 | 60 | 45 |
| 1-1-86 and thereafter | 65 | 55 | 55 |

CNEL in dBA

COMPATIBLE LAND USES WITHIN AIRPORT NOISE IMPACT BOUNDARIES

- Agriculture
- Airport owned property
- Industrial uses
- Commercial uses
- Property subject to an aviation easement for noise
- Zoned open space
- Apartments in which adequate protection against exterior noise has been included in the

design and construction. Adequate protection means that the interior community noise equivalent level in all rooms for human occupancy does not exceed 45 dBA during aircraft operations.

- Existing homes which have been acoustically treated. The community noise equivalent level on the boundaries of such residential areas may be increased by as much as 15 dBA over the community noise equivalent level criterion for non-acoustically treated homes.

CRITERIA FOR ESTABLISHING HELIPORTS

- Avoid residential areas and other noise-sensitive areas in planning routes, approaches and takeoffs.
- Require an acoustical assessment for heliport conditional use application with noise evaluation indicating compatible uses consistent with the requirements of:

Heliports and helistops approved prior to November 10, 1970

- 70 CNEL to December 31, 1985 and
- 65 CNEL January 1, 1986 and after.

New heliports and helistops 65 CNEL

MOTOR VEHICLE NOISE STANDARDS

The following standards were promulgated by the State Department of Motor Vehicles. They are based on measurements 50 feet from the center of the lane of travel, and were applicable January 1, 1973.

| | 35 mph or less | more than 35 mph |
|---|----------------|------------------|
| Any motor vehicle with a manufacturer's gross vehicle weight rating of 6,000 lbs. or more, and any combination of vehicles towed by such motor vehicle. | 65 dBA | 70 dBA |
| Any motorcycle other than a motor-driven cycle | 72 dBA | 76 dBA |
| Any other motor vehicle and any combination of vehicles towed by such motor vehicle | 70 dBA | 72 dBA |

LAND USE CRITERIA FOR LOCATING RESIDENTIAL BUILDINGS

- In areas where the daytime outdoor noise level exceeds an L50 of 60 dBA, detached housing should not be located.
- In areas where the daytime outdoor noise level exceeds L50 of 65 dBA, apartment buildings should not be located unless the buildings are air-conditioned so that windows can be closed to lessen noise intrusion.
- In areas where the outdoor noise level exceeds an L50 of 70 dBA, special soundproofing should be required in apartment buildings.
- In noise-impacted areas, all developments should be acoustically engineered for indoor noise standards.

PRESUMED MINIMUM AMBIENT NOISE LEVELS dB(A)*

| ZONE | DAY | NIGHT | DAY | NIGHT |
|---|-----|-------|-----|-------|
| RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, & R5 * | 55 | 45 | 50 | 40 |
| P, PB, CR, C1, C2, C4, C5, & CM | 60 | 55 | 60 | 55 |
| M1, MR1 & MR2 | 65 | 65 | 65 | 65 |
| M2 & M3 | 70 | 70 | 70 | 70 |

* These presumed minimum ambient noise levels are to be used only if the true "measured" ambient noise levels are less than the values designated in the above table extracted from the noise ordinance. In most cases, the noise ordinance allows a difference over the true ambient or presumed minimum ambient, whichever is the greatest.

CITY NOISE STANDARDS (Chapter XI of the Municipal Code)

It is intended that these standards will be used to control noises in actions for conditional use activities and consideration of certain noisy commercial uses such as automobile repair businesses, cleaning establishments, auditoriums, body and fender repairing, and carpenter shops.

The noise levels set forth in column "A" of

the noise ordinance are to be used for the first five years following the effective date of the ordinance enacting the chapter, and column "B" shall be used thereafter. Daytime levels are to be used from 7:00 A.M. to 10:00 P.M. and night time levels from 10:00 P.M. to 7:00 A.M. At the boundary line between zones, the presumed minimum ambient noise level of the quieter zone shall be used.



PROGRAMS

GENERAL

- Conduct studies of alternative methods of acquisition of noise impacted areas, including utilization for open space buffers.
- Encourage the use of loans, grants, demonstration projects and other incentives to achieve noise abatement.
- Conduct community noise surveys as part of community plan studies.
- Develop design criteria for active recreational facilities so as not to transmit noise to surrounding residential areas.
- Apply the residential acoustical design criteria in the Building Code for the construction of new hospitals and convalescent homes.
- Consider an ordinance to require insulation and other noise control methods on new schools and hospitals within Ldn 65 noise contours.
- Study noise criteria for use in planning the location of new school facilities.
- Review public improvements in noise-impacted areas, to insure that noise abatement

measures are included in the project.

- Consider noise impacts in land development actions (zone changes, subdivisions, conditional uses, etc.) with special attention given to noise sensitive uses.
- Seek Federal and State financial assistance for future noise studies including alternate transportation systems, community plan surveys and monitoring.
- Consider an ordinance to require activities which find it economical to locate in noise impacted areas, such as hotels and motels, to include noise attenuation considerations in their design and construction.
- Determine the feasibility of requiring noise level labeling for appropriate consumer products sold within the City, and prohibiting the sale of products exceeding approved noise standards.
- The City should review its own functions and activities to make sure that noise from construction, refuse collection (public and private collection), and street cleaning is reduced to the lowest possible level.

- Consider the use of noise criteria in the purchase of new equipment by City departments and agencies as part of bid evaluation.

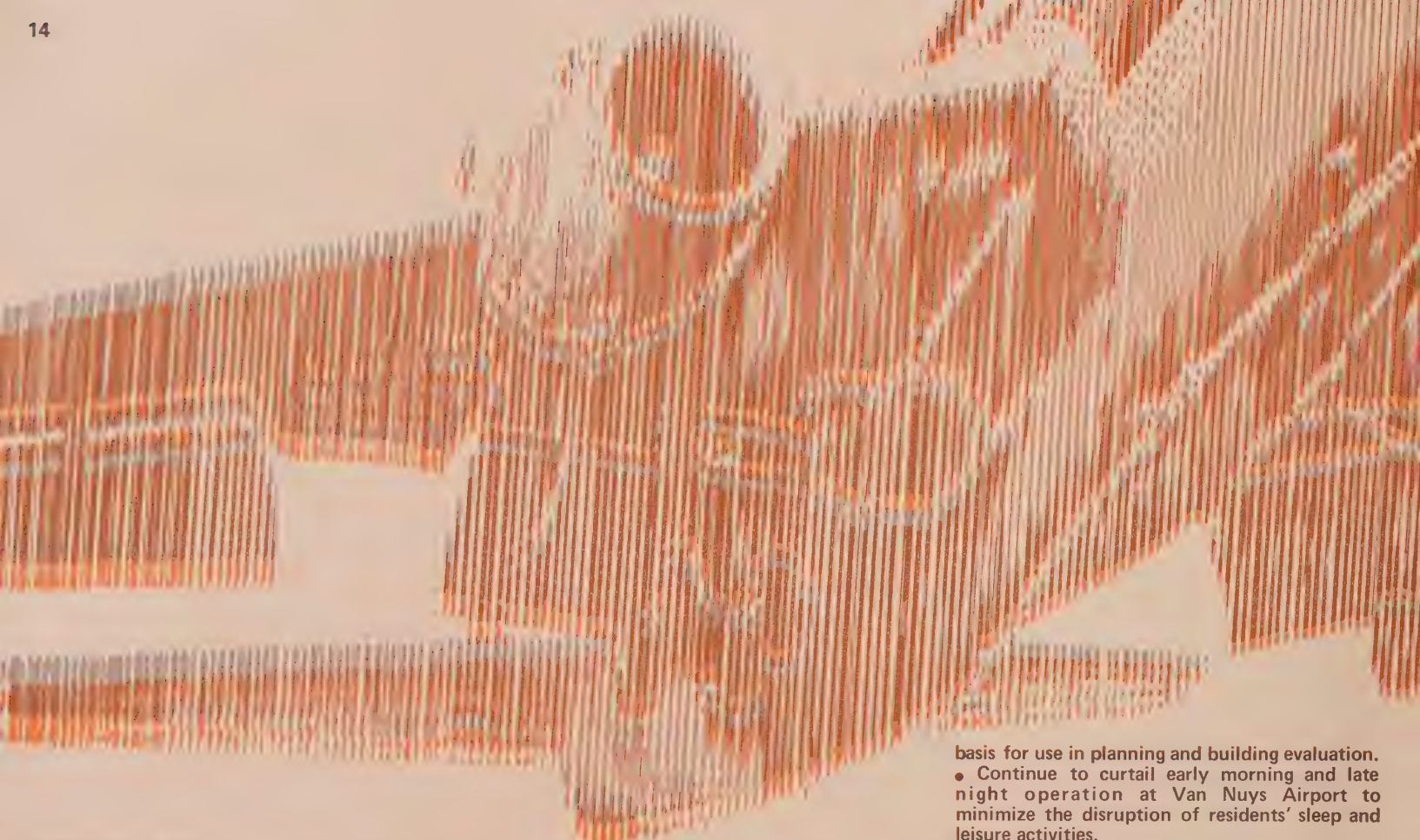
GOVERNMENTAL COORDINATION

- Clarify the roles of the Federal, State, County and City governments in noise abatement.
- Federal, State and local governments should consider the social and economic impacts of noise in all regional and urban planning efforts.
- Develop a mechanism to assure the coordination of all jurisdictions in the field of noise control, abatement and research.



- Develop regional planning agreements to reduce noise incompatibilities across city boundaries using such tools as zoning and performance standards.
- Continue to review county and regional plans for transportation, airports, etc. to identify the environmental impact of noise and to develop alternatives for the control of major noise sources.
- Request the Federal and State Governments, in cooperation with standardization organizations and industrial associations to develop standards for noise level labeling of consumer products that are sources of noise.





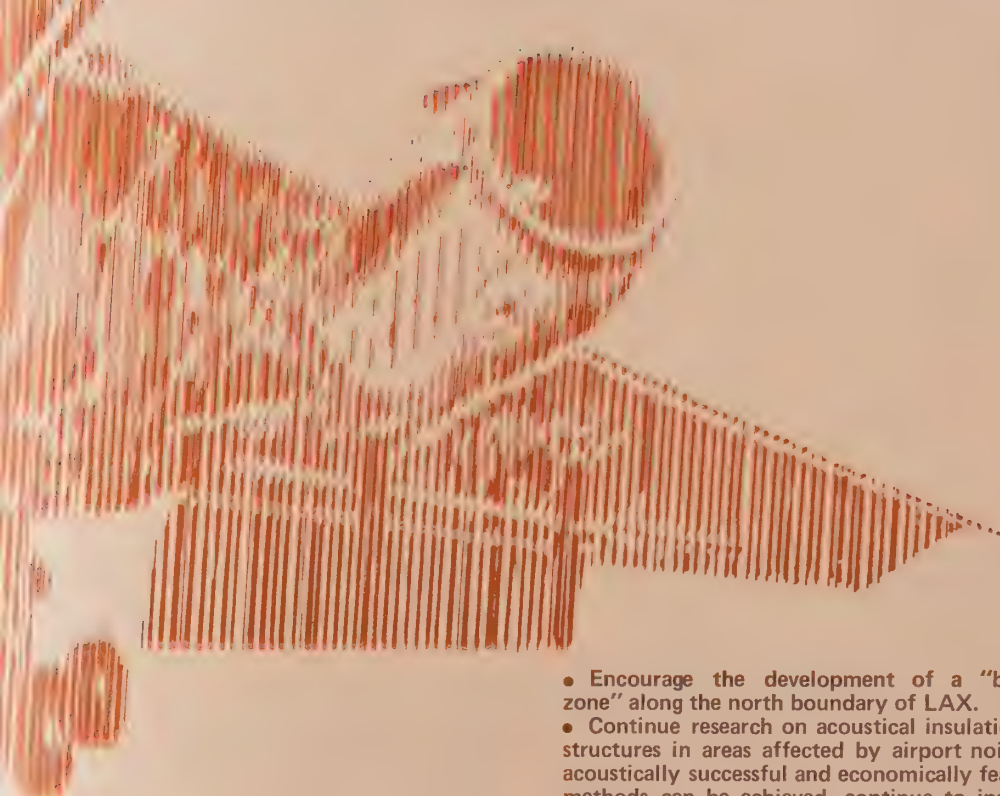
AIRCRAFT NOISE

- Re-install an adequate noise monitoring system at Los Angeles International Airport (LAX) to satisfy State requirements and enforce existing noise abatement policies.
- Continue the program at LAX of night and early morning take-offs and landings over the ocean to minimize noise impacts on residential areas.

- Investigate all legal methods for enforcing noise standards for airports, including those not under City jurisdiction but whose operations adversely affect the City.
- Encourage appropriate jurisdictions to develop noise monitoring systems for all airports where the CNEL 65 noise contours fall within the City, and map these contours on an annual

basis for use in planning and building evaluation.

- Continue to curtail early morning and late night operation at Van Nuys Airport to minimize the disruption of residents' sleep and leisure activities.
- Develop quantitative noise standards for aircraft operations at Van Nuys Airport and require conformity by all aircraft.
- Propose that the FAA raise the minimum aircraft altitude to 2,000 feet in developed areas, and 1,000 feet in other areas.
- Request the FAA to require operators of pleasure aircraft to fly at altitudes sufficient to minimize noise on the ground.



- Conduct studies to insure that there are effective noise barriers in all airport runup areas and require portable ground noise suppressors for extended jet engine maintenance runups.
- In areas adversely affected by aircraft noise, conduct feasibility studies to encourage commercial and manufacturing uses which are compatible with higher noise levels than residential uses.
- Continue the City's program to acquire those portions of the LAX noise affected area which are subject to the most intense noise levels, and develop them for airport purposes.

- Encourage the development of a "buffer zone" along the north boundary of LAX.
- Continue research on acoustical insulation of structures in areas affected by airport noise. If acoustically successful and economically feasible methods can be achieved, continue to insulate residential structures as a temporary relief measure.
- Develop a method to provide Federal financial assistance for persons adversely affected by excessive noise from airports developed with Federal assistance. (This would include sound proofing of schools and homes and development of replacement housing.)
- Consider the development of an Airport Zoning Ordinance which is tied to soundproofing modifications in the Building Code.
- Consider an ordinance to prohibit incompatible land uses to be constructed within airport noise contours exceeding CNEL 65, and substantially reduce incompatible land uses within these noise contours.

- Study the potential of restrictions on aircraft types, limiting operations, and changes in operating procedures and schedules for reducing noise impact.
- Develop long-range plans for compatible land use in aircraft noise impact areas. Work with other cities in developing such plans for areas outside the City of Los Angeles that are impacted by Los Angeles airports.
- When considering development and environmental impacts pertaining to Hollywood Burbank Airport, the City should pursue programs to insure:

1. Land uses within airport noise impact boundaries as defined in California Department of Aeronautics standards, be made compatible with airport operations. These standards shall be met by various means to eliminate conflicting land uses and to reduce the size of the noise impact area including modifying or restricting air operations, re-zoning, redevelopment, soundproofing or purchase of noise easements, etc. Future development within these impact boundaries shall be restricted to compatible uses.
2. Use of high approach paths and the planned installation of distance measuring equipment which will permit two segmented approaches on the instrument landing system. Additionally, the airport should consider development of an all Instrument Landing System (ILS) standardized for a three-degree approach angle, two-segment approaches for use under Visual Flight Rules (VFR) conditions, and minimum flap settings for use under VFR conditions.
3. Use of the Hollywood — Burbank Airport by aircraft with lower noise level characteristics and discourage its use by higher noise level aircraft.
4. Provision of additional noise mitigation by planning runway utilization schedules to take into account adjacent residential areas, noise characteristics of aircraft and noise sensitive time periods.
5. Reduction of flight frequency, particularly in the most noise sensitive time periods.

HELICOPTERS AND STOL AIRCRAFT NOISE

- Develop noise standards to control helicopter landing facilities in and near residential areas.
- Develop noise standards to regulate ground level helicopter landing facilities in highly developed areas; it is preferable to locate helistops on rooftops of buildings which are higher than surrounding buildings.
- Noise criteria should require noise mitigating designs for helistops and heliports, by using distance, terrain, barriers, baffles, etc.
- Recommend standards to the FAA to require non-emergency helicopters to fly at adequate heights to avoid adversely impacting residential and other noise sensitive areas, and limit the hours of operation and flight routes.
- Consider noise criteria in purchasing Police and Fire Department helicopters as part of bid evaluation.
- Adopt noise standards for STOL aircraft in the City consistent with Federal Aviation Regulations (FAR) and Noise Standard Regulations of the State Department of Aeronautics for new aircrafts.
- Studies should be conducted to reduce STOL

aircraft noise and to develop adequate regulations and restrictions to make their use compatible with urban land uses.

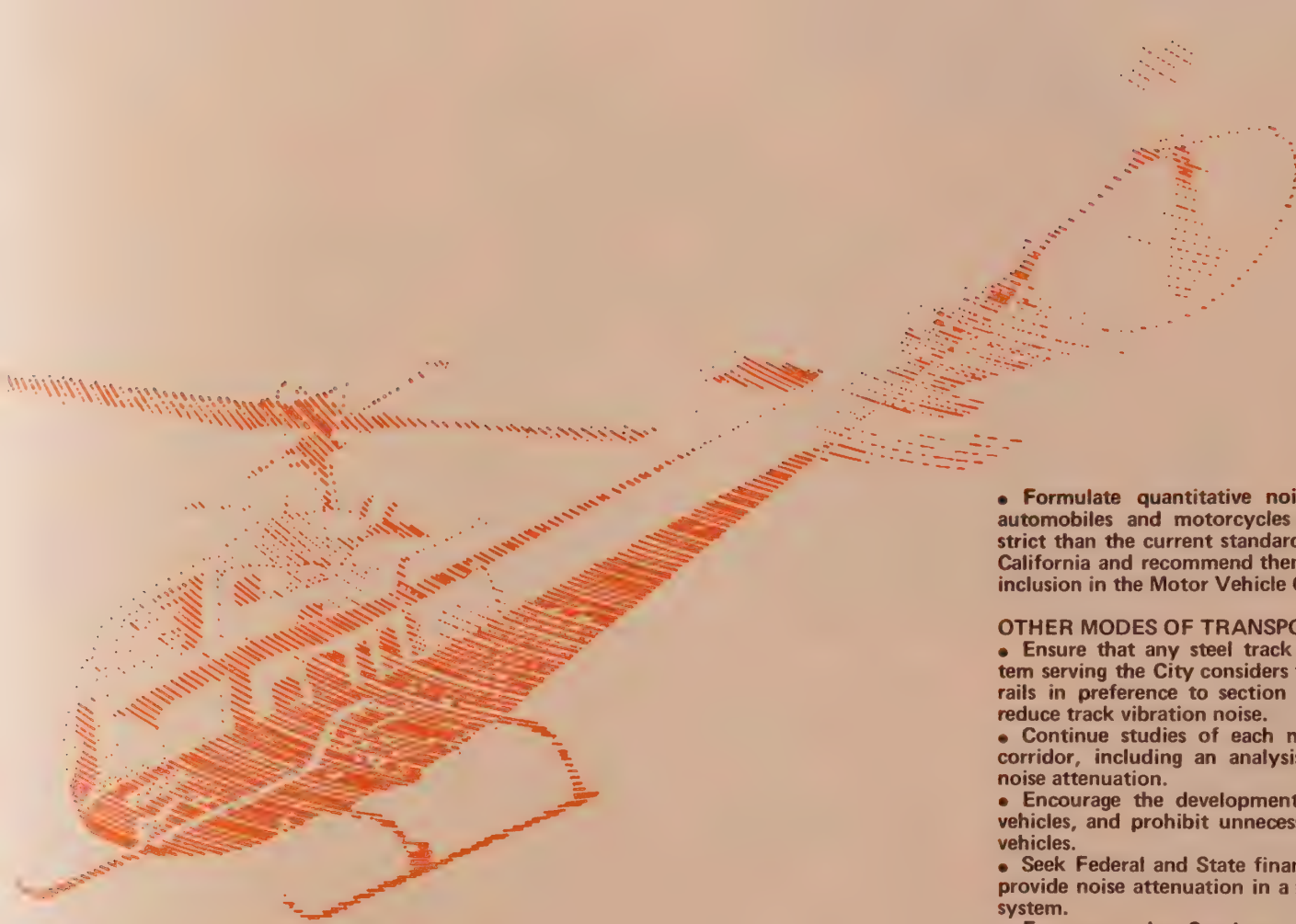
STREET AND FREEWAY NOISE

- Continue to work closely with the State Department of Transportation in the early stages of freeway routing and design to insure proper consideration of noise impact on the City.
- Establish guidelines for acceptable freeway and highway noise levels, incorporating source noise reduction, barriers, and other design elements.
- In future highway studies, design highways with as few stops as possible.
- Request Federal and State highway assistance to develop noise mitigation measures for use on freeways and highways.
- Encourage larger setbacks or service roads to reduce adverse noise effects along major and secondary highways and other large traffic volume streets.
- In the design and construction of freeways and local streets and highways, provide artificial barriers for noise insulation, to the extent feasible.

- Consider an ordinance to prohibit incompatible land uses to be constructed within freeway noise contours exceeding Ldn 65, and to substantially reduce incompatible land uses within these freeway noise contours.

MOTOR VEHICLE NOISE

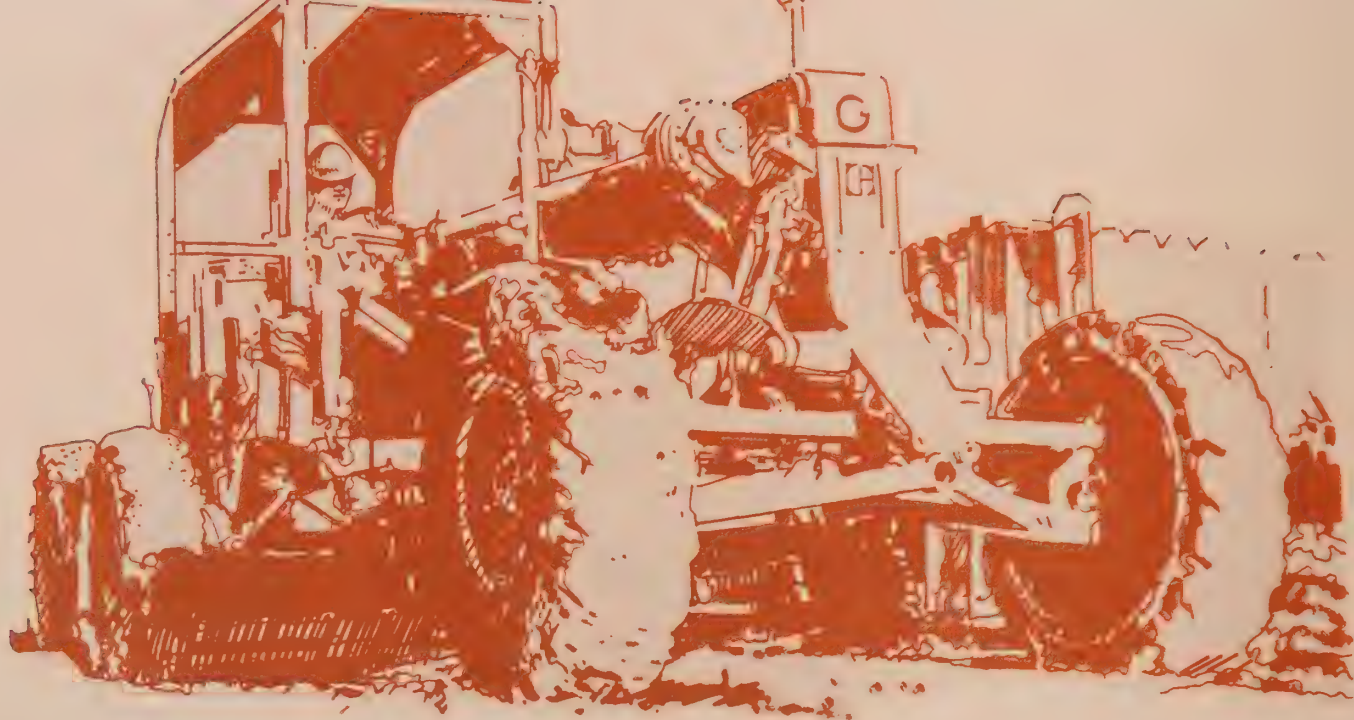
- Adopt noise criteria for use in the purchase of all City-owned motorized vehicles.
- Encourage the Federal Government to improve noise characteristics in vehicle design.
- Recommend that noise criteria be used by other public agencies and private firms with large numbers of vehicles operating in the City.
- Recommend that the State of California adopt more rigorous noise standards governing the operation of all trucks and buses, including annual noise certification.
- Encourage the Federal Government to conduct additional noise reduction studies on diesel trucks. These studies should go beyond studies of muffler improvements and tire tread design.
- Conduct studies to develop alternate truck routes through industrial areas to minimize noise in residential areas of the City.
- Continue enforcement procedures to effect compliance with noise standards.



- Formulate quantitative noise standards for automobiles and motorcycles which are more strict than the current standards of the State of California and recommend them to the State for inclusion in the Motor Vehicle Code.

OTHER MODES OF TRANSPORTATION

- Ensure that any steel track rapid transit system serving the City considers the use of welded rails in preference to section rails, in order to reduce track vibration noise.
- Continue studies of each mass rapid transit corridor, including an analysis of methods of noise attenuation.
- Encourage the development of quiet transit vehicles, and prohibit unnecessary noise within vehicles.
- Seek Federal and State financial assistance to provide noise attenuation in a mass rapid transit system.
- Encourage the Southern California Rapid Transit District to consider noise criteria as an important factor in their purchase of new buses.
- On a priority basis, develop a program to encourage railroads to provide noise attenuating buffers along railroad rights-of-way in residential areas.



CONSTRUCTION NOISE

- Encourage the use of quieter equipment on City construction projects through the use of noise criteria as part of the bidding procedure.
- Use the City's Noise Ordinance to require the installation of airflow silencers or mufflers on construction equipment intake and exhaust openings.
- Continue to regulate construction or excavation noise between the hours of 9:00 P.M. and 7:00 A.M. of the following day.

INDUSTRIAL NOISE

- Consider the use of the City's Noise Ordinance to require that noisy industrial equipment be fully or partially insulated by sound-attenuating material to reduce noise levels emitted to nearby areas.

- Encourage industry to conduct research on the technology of noise abatement and control as it relates to their activities.
- Encourage the Federal and State governments to continue to provide standards of allowable industrial noise exposure so that all workers are adequately protected against noise-induced hearing loss. (Many occupations may require the use of ear protection devices.)
- Consider the adoption of Industrial Performance Standards, including noise standards, similar to those in the proposed Revised Zoning Code, Industrial Zones.

NOISE/LAND USE

- In noise-impacted areas, require all new noise-sensitive land uses to be acoustically engineered for indoor noise standards.

- Use design criteria in site planning as a technique to minimize intrusion of exterior noise into buildings.
- Continue to consider noise control early in the design stage of multi-family dwellings to reduce the cost of acoustical treatment.
- Conduct studies to reduce noise sensitive land uses in community plans.
- Continue to enforce the City's Noise Ordinance to abate disturbing noise emanating from air conditioners, lawn mowers, and other consumer products.

NOISE SURVEILLANCE AND ENFORCEMENT

- Continue to inform the public about the City's Noise Ordinance and continue to enforce the ordinance to abate unnecessary outdoor noises.

- Consider a noise monitoring program and evaluation system which would include but not be limited to:

1. Continue reviewing the City's Noise Ordinance in light of enforcement experience since its adoption in January 1973, and making appropriate amendments, and modifying City codes to make them consistent with the Noise Ordinance.

2. Developing and maintaining a systematic survey of the City. This will help to provide a way to determine the effectiveness of noise control measures.

3. Seeking Federal and State funding for the development of local noise surveillance and monitoring.

- Encourage governmental agencies to enact uniform noise codes, regulations and standards.
- Establish a position of Noise Control Admini-

strator in the City to be responsible for noise abatement activities including: legislation, standards, monitoring and the coordination of enforcement activities.

RESEARCH AND LEGISLATION

- The City should conduct studies into the development of sound exposure zones which will control the types of activities that may locate there.

- Continue noise control research and its application in residential housing, particularly in multi-family dwellings.

- Request the Federal Government to expand their research into noise in the following areas:

1. Community response to noise.
2. The costs and benefits of noise, noise control standards and noise mitigation.
3. The application of noise control tech-

nology to vehicles, transportation systems, machinery, appliances and construction.

- Develop criteria for the location of land uses and facilities which are incompatible with noise, such as schools, hospitals, and single-family housing.

- As part of the community planning process, study ambient noise levels and identify major stationary noise sources.

- A noise sensitivity index similar to that developed by the Department of Housing and Urban Development, should be developed for the various land use classifications in Los Angeles.

- Encourage the Federal and State Governments to provide other incentives for manufacturers who voluntarily improve existing equipment for the purpose of lowering noise levels.




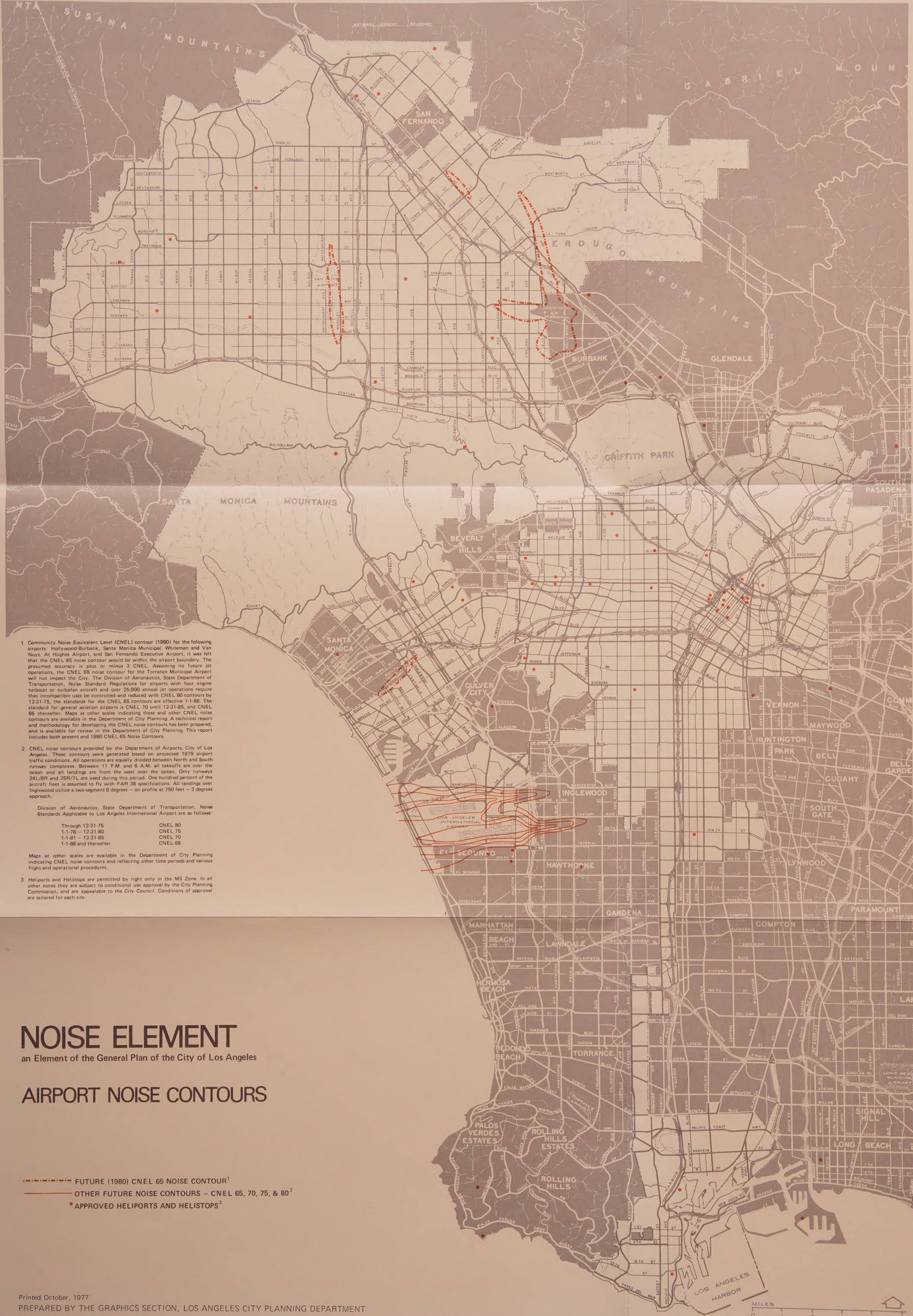
- 1 Noise Contours are shown only for State highways and freeways (with adopted routes) and indicate areas which may have high noise levels where noise studies should be conducted before developing noise-sensitive uses. High noise levels in other areas of the City may also be generated by high traffic volume streets and highways, railroads, and specific noise sources; these should be identified by future noise level studies for community plans and for new development. (Refer to Major and Secondary Highways Map.)
- 2 Information pertaining to land use, density, transportation, public facilities, etc. is shown on the appropriate community, district or area plans, and the technical elements of the General Plan.
- 3 Noise contours for freeways (with adopted routes) and State Highways have been provided by the State Department of Transportation. The Plan Map indicates the 65 dBA noise contours based on the California 701-A methodology. The presumed accuracy is plus/minus 6 dBA. (This methodology is Appendix "C" in the noise plan background report.) Maps at other scales are available in the City Planning Department indicating noise contours from peak noise levels down to the 45 dBA noise contour in 5 dBA intervals. A technical report has been developed for the Planning Department for the evaluation of noise from freeways, highways, local streets and railroads in the City. Included in the method is a weighing factor to determine day and night noise levels (Ldn).

NOISE ELEMENT

an Element of the General Plan of the City of Los Angeles

STATE HIGHWAYS AND FREEWAYS

 PRESENT & FUTURE 65 DBA NOISE CONTOURS³



1 Community Noise Equivalent Level (CNEL) contour (1980) for the following airports: Hollywood-Burbank, Santa Monica Municipal, Whiteman and Van Nuys. At Hughes Airport, and San Fernando Executive Airport, it was felt that the CNEL 65 noise contour would be within the airport boundary. The presumed accuracy is plus or minus 3 CNEL. Assuming no future jet operations, the CNEL 65 noise contour for the Torrance Municipal Airport will not impact the City. The Division of Aeronautics, State Department of Transportation, Noise Standard Regulations for airports with four engine turbojet or turbofan aircraft and over 25,000 annual jet operations require that incompatible uses be controlled and reduced with CNEL 80 contours by 12-31-75, the standards for the CNEL 65 contours are effective 1-1-88. The standard for general aviation airports is CNEL 70 until 12-31-85, and CNEL 65 thereafter. Maps at other scales indicating these and other CNEL noise contours are available in the Department of City Planning. A technical report and methodology for developing the CNEL noise contours has been prepared, and is available for review in the Department of City Planning. This report includes both present and 1980 CNEL 65 Noise Contours.

2 CNEL noise contours provided by the Department of Airports, City of Los Angeles. These contours were generated based on projected 1979 airport traffic conditions. All operations are equally divided between North and South runway complexes. Between 11 P.M. and 6 A.M. all takeoffs are over the ocean and all landings are from the west over the ocean. Only runways 24L/6R and 25R/7L are used during this period. One hundred percent of the aircraft fleet is assumed to fly with FAR 36 specifications. All landings over Inglewood utilize a two-segment 6 degrees — on profile at 750 feet — 3 degrees approach.

Division of Aeronautics, State Department of Transportation, Noise Standards Applicable to Los Angeles International Airport are as follows:

| | |
|-----------------------|---------|
| Through 12-31-75 | CNEL 80 |
| 1-1-76 — 12-31-80 | CNEL 75 |
| 1-1-81 — 12-31-85 | CNEL 70 |
| 1-1-86 and thereafter | CNEL 65 |

Maps at other scales are available in the Department of City Planning indicating CNEL noise contours and reflecting other time periods and various flight and operational procedures.

3 Heliports and Helistops are permitted by right only in the M3 Zone. In all other zones they are subject to conditional use approval by the City Planning Commission, and are appealable to the City Council. Conditions of approval are tailored for each site.

NOISE ELEMENT

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AIRPORT NOISE CONTOURS

- FUTURE (1980) CNEL 65 NOISE CONTOUR¹
- OTHER FUTURE NOISE CONTOURS — CNEL 65, 70, 75, & 80²
- APPROVED HELIPORTS AND HELISTOPS³

